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| 09/652,735      | 08/31/2000  | Leif Einar Aune      | 28170-00022         | 3631             |

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ERICSSON INC.  
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EXAMINER

LEE, PHILIP C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2154

DATE MAILED: 07/07/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/652,735

Applicant(s)

AUNE, LEIF EINAR

Examiner

Philip C Lee

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

1. This action is responsive to the amendment and remarks filed on April 30, 2004.
2. Claims 11-17 are presented for examination.
3. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.
4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Examiner suggests the title of the invention be amended to "Dynamically Distributed IP-Pool In GPRS".

*Claim Rejections – 35 USC 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 11, 14 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schutte et al, U.S. Patent 6,178,455 (hereinafter Schutte) in view of Eikeland, U.S. Patent 5,828,837 (hereinafter Eikeland).

7. Schutte and Eikeland were cited in the last office action.

8. As per claims 11 and 16-17, Schutte taught the invention substantially as claimed for distributing IP-addresses in a General Packet Radio Service (GPRS) network (col. 22, lines 25-27), comprising:

a global processor in the GPRS network that stores a global pool of available addresses (Abstract; col. 3, lines 66-col. 4, lines 7); and

a plurality of application processors in external networks connected to the GPRS network (Abstract; col. 3, lines 66-col. 4, lines 7), each of the application processors being adapted to:

store blocks of IP-addresses in an internal pool of IP-addresses (col. 11; lines 50-53) and distributing IP-addresses between the global processor and the application processors while ensuring that a sufficient number of IP-addresses is available to serve all requests for additional IP-addresses (col. 19, lines 43-54);

supply an IP-address from the application processor's internal pool to a user upon request (Abstract; col. 3, lines 66-col. 4, lines 7); and

request an additional IP-address from the global processor when the application processor's internal pool is empty or nearly empty (abstract; col. 16, lines 39-48);

wherein the global processor is adapted to transfer from the global pool to the requesting application processor, a block of IP-addresses comprising a plurality of IP-addresses in response

to a request for an additional IP-address from the requesting application processor (abstract; 122, figure 1; col. 11, lines 61-64; col. 16, 39-48).

9. Schutte did not teach wherein the size of the blocks are dynamically adjusted to minimize the amount of traffic required to request. Eikeland taught the size of the block of data that is sent to the user are dynamically adjusted according to the amount of traffic (col. 5, lines 62-col. 6, lines 30).

10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schutte and Eikeland because Eikeland's method of dynamically adjusting the size of the block would increased the efficiency of Schutte's system by accounting for the network bandwidth thus minimizing transmission delay to normal network traffic (col. 2, lines 4-11).

11. As per claim 14, Schutte and Eikeland taught the invention substantially as claimed in claim 11 above. Schutte further taught wherein the global processor is arranged to release addresses that have not been used in a preceding interval of time (col. 17, lines 49-64).

12. Claims 12-13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schutte and Eikeland in view of Wang et al, U.S. Patent 6,496,511 (hereinafter Wang).

13. Wang was cited in the last office action.

14. As per claims 12-13, Schutte and Eikeland taught the invention as claimed in claim 11 above. Schutte further taught wherein a given application processor is adapted to release a block of IP-addresses to users and notify the global processor of the release (abstract; col. 19, lines 19-30; col. 27, lines 6-20).

15. Schutte and Eikeland did not teach a means to release, if the number of addresses in the internal pool of an application processor exceeds a predefined limit. Wang taught a means to release the IP-address by predefining a customized function (col. 20, lines 25-29; col. 6, lines 55-64).

16. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schutte, Eikeland and Wang because Wang's method of customizing a function for the means of release would increased usefulness of Schutte's and Eikeland's methods by allowing a user to predefine a customize event for triggering the release of IP-addresses.

17. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schutte and Eikeland in view of Antic et al, U.S. Patent 5,561,854 (hereinafter Antic).

18. Antic was cited in the last office action.

19. As per claim 15, Schutte and Eikeland taught the invention substantially as claimed in claim 11 above in which each application processor is arranged to store the internal pool of IP-addresses in Random-Access Memory (RAM) (col. 9, lines 12-17).

20. Schutte and Eikeland did not teach making back-up copies of the internal pool on a persistent storage medium with regular intervals. Antic taught the method of making back-up copies of the home location register on a persistent storage medium with regular intervals (col. 3, lines 17-31).

21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schutte, Eikeland and Antic because Antic's method of making back-up copies of data would increased the reliability of Schutte's and Eikeland's method by allowing the application process to restore the pool of IP-addresses in the event of a crash in the GPRS network (col. 1, lines 36-39).

22. Applicant's arguments with respect to claims 11-17, filed 4/30/04, have been fully considered but are not deemed to be persuasive.

23. In the remark applicant argued that

(1) Schutte's head end and hosts (which are utilized in a fixed landline network) are not equivalent to the global processor and application processor utilized in the wireless GPRS network.

(2) Eikeland did not teach flow control for blocks of IP addresses in order to reduce the number of requests for IP addresses received by a global processor in a GPRS network.

(3) Eikeland fails to teach minimizing the amount of traffic while ensuring that a sufficient number of blocks is available to serve all requests for additional IP-addresses.

24. In response to point (1), Schutte taught the RF link may be replaced by any unidirectional link and the telephone line may be replaced by any bidirectional link that is independent of the RF link. Schutte further taught the LAN that connects the RF modem to the hosts may be replaced by any medium which provides a bidirectional connection between FR modem and hosts (col. 22, lines 17-27).

25. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schutte's system for utilization in the wireless GPRS network.

26. In response to point (2), Schutte taught request for IP addresses received by a global processor in a GPRS network (col. 16, lines 39-48). Schutte did not teach flow control. Eikeland taught flow control for blocks of data in order to reduce the amount of network traffic (col. 5, lines 62-col. 6, lines 30).



27. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schutte and Eikeland because Eikeland's method of dynamically adjusting the size of the block would increased the efficiency of Schutte's system by accounting for the network bandwidth thus minimizing transmission delay to normal network traffic (col. 2, lines 4-11).


28. In response to point (3), Schutte taught distribute IP-addresses between the global processor and the application processors while ensuring that a sufficient number of IP-addresses is available to serve all requests (col. 19, lines 43-54).

29. Schutte did not teach dynamically adjusting blocks of IP-addresses. Eikeland taught dynamically adjusting the blocks of data to minimize the amount of traffic (col. 5, lines 62-col. 6, lines 30).

30. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schutte and Eikeland because Eikeland's method of dynamically adjusting the size of the block would increased the efficiency of Schutte's system by accounting for the network bandwidth thus minimizing transmission delay to normal network traffic (col. 2, lines 4-11).

31. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.
32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip C Lee whose telephone number is (703)305-7721. The examiner can normally be reached on 8 AM TO 5:30 PM Monday to Thursday and every other Friday.
33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.
34. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)350-6121.

P.L.

  
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